Application No.: 10/523,287
Filing Date: February 3, 2005

AMENDMENTS TO THE CLAIMS Please add new Claims 10-17 as shown herein.

1. (Previously presented) A process for producing an *N*-monoalkyl-3-hydroxy-3-(2-thienyl)propanamine represented by General Formula (2):

$$R$$
 R (2)

wherein \mathbf{R} is C_{1-4} alkyl, comprising the step of reducing a (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine, in the presence of a carboxylic acid, represented by General Formula (1):

wherein \mathbf{R} is as defined above.

- 2. (Original) The process according to Claim 1, wherein the (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine is reduced using sodium borohydride or sodium cyanoborohydride.
- 3. (Cancelled)
- 4. (Original) A (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented by General Formula (1):

wherein **R** is C_{1-4} alkyl.

- 5. (Original) The (Z)-N-monoalkyl-3-oxo-3-(2-thienyl)propenamine according to Claim 4, wherein **R** in General Formula (1) is methyl.
- 6. (Original) A process for producing a (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented by General Formula (1):

Application No.: 10/523,287
Filing Date: February 3, 2005

wherein **R** is C_{1-4} alkyl, comprising the step of reacting an alkali metal salt of β -oxo- β -(2-thienyl)propanal represented by General Formula (3):

$$\begin{array}{c}
\bigcirc \\
S \\
\longrightarrow \\
M \\
\end{array}$$
(3)

wherein M is an alkali metal atom, with a monoalkylamine compound represented by General Formula (4):

$$H_2N-R$$
 (4)

wherein \mathbf{R} is as defined above.

7. (Previously presented) A process for producing an *N*-monoalkyl-3-hydroxy-3-(2-thienyl)propanamine represented by General Formula (2):

$$R$$
 R (2)

wherein **R** is C_{1-4} alkyl, comprising the steps of:

reacting an alkali metal salt of β -oxo- β -(2-thienyl)propanal represented by General Formula (3):

$$\begin{array}{c}
\bigcirc \\
\bigcirc \\
\bigcirc \\
M \\
\end{array}$$
(3)

wherein M is an alkali metal atom, with a monoalkylamine compound represented by General Formula (4):

$$H_2N-R$$
 (4)

wherein \mathbf{R} is as defined above, to give a (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented by General Formula (1):

wherein **R** is as defined above; and

reducing the (Z)-N-monoalkyl-3-oxo-3-(2-thienyl)propenamine, in the presence of a carboxylic acid.

Application No.: 10/523,287
Filing Date: February 3, 2005

- 8. (Original) The process according to Claim 7, wherein the (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine is reduced using sodium borohydride or sodium cyanoborohydride.
- 9. (Cancelled)
- 10. (New) The process according to Claim 1, wherein the reducing step of the process is conducted in a hydrocarbon solvent.
- 11. (New) The process according to Claim 10, wherein the hydrocarbon solvent is an aromatic hydrocarbon solvent.
- 12. (New) The process according to Claim 10, wherein the hydrocarbon solvent is selected from the group consisting of pentane, hexane, cyclohexane, heptane, benzene, toluene, and xylene.
- 13. (New) The process according to Claim 12, wherein the hydrocarbon solvent is toluene.
- 14. (New) The process according to Claims 6, wherein the monoalkylamine compound represented by General Formula (4):

$$H_2N-R$$
 (4)

is a hydrochloride salt or a sulfuric acid salt.

15. (New) The process according to Claim 14, wherein the monoalkylamine compound represented by General Formula (4):

$$H_2N-R$$
 (4)

is a hydrochloride salt.

16. (New) The process according to Claims 7, wherein the monoalkylamine compound represented by General Formula (4):

$$H_2N-R$$
 (4)

is a hydrochloride salt or a sulfuric acid salt.

17. (New) The process according to Claim 16, wherein the monoalkylamine compound represented by General Formula (4):

$$H_2N-R$$
 (4)

is a hydrochloride salt.